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10/620,784	07/16/2003	Jay D. Blackson	TRW(AP)6501	1113

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TAROLLI, SUNDHEIM, COVELL, & TUMMINO L.L.P.  
1111 LEADER BLDG.  
526 SUPERIOR AVENUE  
CLEVELAND, OH 44114-1400

EXAMINER

GOODEN JR, BARRY J

ART UNIT PAPER NUMBER

3616

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/620,784	<b>Applicant(s)</b> BLACKSON ET AL.	
	<b>Examiner</b> Barry J. Gooden Jr.	<b>Art Unit</b> 3616	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/8/05</u> . | 6) <input type="checkbox"/> Other: ____.  |

**DETAILED ACTION**

This office action is in response to the amendment filed on 12/8/05. Claims 1, 4, 16, and 19 are currently amended. Claims 21-24 are added.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enders, US Patent 6,846,010 B2, in view of Einsiedel, US Patent 6,318,754 B1.

In regards to claims 1, Enders et al. show all of the claimed structural elements including the inflatable curtain, actuatable inflator, fill tubes and inflation distribution manifold capable of directing inflation fluid into the fill tubes at different flow rates (Figures 1 and 2; Column 6, Lines 5-9; and Column 8, Lines 36-42); however, Enders fails to disclose a diffuser and an inflation fluid distribution manifold clamped to the diffuser with first and second fill tubes being threadily connectable to the manifold.

Einsiedel teaches the use of a diffuser portion of an inflator with a collar portion also having a generally cylindrical configuration for clamping onto the diffuser (Figure 2). It would have been obvious to

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one having ordinary skill in the art at the time of invention to modify the inflator as taught by Enders, with the diffuser portion and collar portion as taught by Einsiedel, such a modification would provide the inflator with a very low space requirement and no great weight without the problems of tightness, mounting or safety arising (Column 1, Lines 16-19).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the inflator of Enders in view of Einsiedel to include a diffuser so as to allow the inflation fluid to be dispersed from the inflator to the inflation fluid manifold.

Enders discloses the claimed invention except for the first and second fill tubes being threadily connectable with the inflation fluid manifold.

It is old and well known in the art to use threaded fasteners in place of other well known connections such as nuts and bolts, rivets, and welds.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the inflation fluid manifold and fill tubes of Enders to include a threaded connection so as to provide a secure connection without requiring additional parts or welding, and so as to easily provide for various fill tube configurations.

In response to claim 2, Enders clearly shows and describes the claimed manifold comprised of a main fluid passage, a collar portion, and distribution portions. It is noted that collar is defined as, "**ring-shaped device or part**: a ring-shaped device or part on a shaft that guides, seats, or restricts another mechanical part" (Encarta.com). It is also noted that portion is defined as, "**fraction**: a part or section of a larger whole" (Encarta.com).

In response to claim 3, Enders clearly describes an actuatable inflator connectable with the collar portion of the manifold, referred to as a gas guide, thereby providing fluid communication between the main fluid passage and the inflator outlet flow area (Column 6, Lines 5-9 and Column 8, Lines 36-42).

In response to claim 4, Enders discloses the claimed invention, including the collar portion for connecting the manifold to the inflator, except for the diffuser having a generally cylindrical configuration.

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Einsiedel teaches the use of a cylindrical diffuser portion of an inflator having a generally cylindrical configuration with a collar portion also having a generally cylindrical configuration for clamping onto the diffuser (Figure 2). It would have been obvious to one having ordinary skill in the art at the time of invention to modify the inflator as taught by Enders, with the generally cylindrical diffuser portion and collar portion as taught by Einsiedel, such a modification would provide the inflator with a very low space requirement and no great weight without the problems of tightness, mounting or safety arising (Column 1, Lines 16-19).

In response to claim 5, Enders discloses the claimed invention as previously discussed except for the outlet apertures positioned radially opposite each other about the diffuser, the main fluid passage positioned adjacent to the first outlet when the collar is connected, and the protuberance positioned opposite the main fluid passage, extendable into the second outlet aperture when the collar is connected. Einsiedel teaches the use of two diametrically oppositely lying gas outlet openings, a main fluid passage positioned adjacent to the first outlet when the collar is connected, and the protuberance positioned opposite the main fluid passage, extendable into the second outlet aperture when the collar is connected (Abstract, Lines 3-4; Figure 2; and Column 2, Lines 8-14). It would have been obvious to one with ordinary skill in the art at the time of invention to modify the outlet and collar assemblies as taught by Enders, with the outlet and collar assemblies as taught by Einsiedel, such a modification would provide the inflator with a very low space requirement and no great weight, one of the gas outlet openings with a gas and pressure tight seal and the other with a direct flow passage into the gas conduction line, thereby dispensing with a complicated and expensive housing (Column 1, Lines 16-19 and Lines 31-32; Column 2, Line 4 and Lines 11-15).

In response to claim 6, Enders discloses the claimed invention as previously discussed except for the separate collar parts having fastening means. Einsiedel teaches the use of separate collar parts having fastening means, together defining a clamping surface (Column 2, Lines 26-32). It would have been obvious to one with ordinary skill in the art at the time of invention to modify the collar portion as taught by Enders with the collar portion as taught by Einsiedel, such a modification would practically form

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a constructional unit between the components and an absolutely gas tight flow between the gas generator and the gas conduction line (Column 3, Lines 5-8).

In response to claim 7, Enders shows all of the claimed elements as previously discussed except for the collar portion clamping onto an outer surface of the inflator. Einsiedel clearly shows the claimed elements clamping onto the outer surface of an inflator when the first and second collar parts are connected with each other (Figure 1). It would have been obvious to one with ordinary skill in the art to modify the collar portion as taught by Enders with the collar portion as taught by Einsiedel, such a modification would need very low space requirement and dispense with a complicated and expensive housing which collects gas and then conducts it into a gas conduction line (Column 1, Lines 16-19 and Lines 31-33).

In response to claim 8, Enders clearly shows all of the claimed elements as previously discussed except for the first and second collar parts. Einsiedel teaches the use of two collar parts each consisting in part of inner surfaces having semi-cylindrical configurations and a clamping surface having a generally cylindrical configuration when the parts are connected with each other (Figures 1 and 2). It would have been obvious to one with ordinary skill in the art at the time of invention to modify the collar portion as taught by Enders with the collar portion as taught by Einsiedel, such a modification would have provided a constructional unit with practically an absolutely gas tight flow connection between the gas generator and gas conduction line (Figure 2 and Column 3, Lines 5-8).

In response to claim 9, Enders clearly shows and describes a T-shaped gas guide (Figure 2 and Column 8, Line 34).

In response to claim 10, Enders clearly shows and describes all of the claimed elements, as previously discussed, except for the first collar part formed at the end of a main fluid passage, a second collar part separate from the first and fastening means for connecting the first and second collar part with one another. Einsiedel clearly teaches the use of these elements (Figures 1 and 2). It would have been obvious to one with ordinary skill in the art at the time of invention to modify the collar portion as taught by Enders with the collar portion as taught by Einsiedel, such a modification would dispense with a complicated and expensive housing, provide very low space requirement, and practically form a

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constructional unit between the components and an absolutely gas tight flow connection between the gas generator and the gas conduction line (Column 1, Lines 17-18 and 31-33; Column 3, Lines 5-8).

In response to claim 11, Enders clearly shows and describes all of the claimed elements as previously discussed, except for the first collar part including an aperture that provides fluid communication with the main fluid passage through the inner surface of the first collar portion. Einsiedel clearly teaches the use of an aperture to provide fluid communication with the main fluid passage through the inner surface of the same collar portion (Figure 2). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the collar portion as taught by Enders with the collar portion as taught by Einsiedel, such a modification would eliminate the use of complicated and expensive housings and achieve an almost absolutely gas tight flow connection between the inflator and the main fluid passage, referred to as the gas conduction line (Column 1, Lines 31-33 and Column 3, Lines 6-8).

In response to claim 12, Enders clearly shows and describes all of the claimed elements as previously discussed, except for the inflator comprised in part by first and second outlet apertures positioned opposite each other, the first collar part with aperture adjacent the first outlet aperture when connected, and the second collar part with a protuberance extendable into the second outlet aperture when connected. Einsiedel clearly teaches the use of these elements (Figures 1 and 2). It would have been obvious to one having ordinary skill in the art at the time of invention to modify the inflator outlet and collar portion as taught by Enders with the inflator outlets and collar parts as taught by Einsiedel, such a modification would eliminate the use of complicated and expensive housings and achieve an almost absolutely gas tight flow connection between the inflator and the main fluid passage, referred to as the gas conduction line (Column 1, Lines 31-33 and Column 3, Lines 6-8).

In response to claim 13, Enders clearly shows and describes all of the claimed elements as previously discussed, except for the manifold with a generally S-shaped configuration. Einsiedel teaches the use of a manifold with a generally C-shaped configuration (Column 2, Lines 46-48 and Column 3, Lines 9-13); however, it is noted that a change in the particular configuration from C to S-shaped is not grounds for patentability, as a person of ordinary skill in the art would find it obvious to reverse one portion for the purpose of providing inflation fluid in an opposite direction (In re Dailey, 149 USPQ 47

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(CCPA 1976)). It is also noted that the claim reads on Einsiedel et al. except as to the final limitation "S-shaped," shifting the position of the collar portion, is not grounds for patentability, as a person of ordinary skill in the art would find it obvious to reverse one portion for achieving the same distribution pattern (In re Japikse, 86 USPQ (CCPA 1950)). Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to modify the invention as taught by Enders with the invention as taught by Einsiedel, such a modification would eliminate the use of complicated and expensive housings and achieve an almost absolutely gas tight flow connection between the inflator and the main fluid passages, referred to as the gas conduction lines (Column 1, Lines 31-33 and Column 3, Lines 6-8).

In response to claim 14, Enders clearly shows and describes all of the claimed elements as previously discussed, except for the two collar parts, formed at the end of distribution portions and having semi-cylindrical inner surfaces, and the fastening means for connecting the collar parts with each other thereby defining a cylindrical inner surface. Einsiedel teaches the use these claimed elements (Figures 1 and 2; Column 2, Lines 8-14; Column 3, Lines 9-13). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the collar portions as taught by Enders with the collar portions as taught by Einsiedel, such a modification would minimize cost, complexity and space requirements (Column 1, Lines 16-19 and Lines 31-33).

In response to claim 15, Enders clearly shows and describes all of the claimed elements as previously discussed, except for the apertures in the collar parts providing fluid communication with the main fluid passages. Einsiedel teaches the use of the claimed collar elements (Column 2, Lines 8-14 and Column 3, Lines 9-13). It would have been obvious to one having ordinary skill in the art at the time of invention to modify the collar portion as taught by Enders with the collar portion as taught by Einsiedel, such a modification would minimize cost, complexity and space requirements (Column 1, Lines 16-19 and Lines 31-33).

In response to claim 16, Enders discloses all of the claimed elements as previously discussed, except an inflator comprised in part of two outlet apertures positioned opposite each other and the collar apertures adjacent the inflator apertures when the collar portions are connected. Einsiedel teaches the use of the claimed collar elements (Column 2, Lines 8-14 and Column 3, Lines 9-13). It would have been



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obvious to one having ordinary skill in the art at the time of invention to modify the collar portion as taught by Enders with the collar portion as taught by Einsiedel, such a modification would minimize cost, complexity and space requirements (Column 1, Lines 16-19 and Lines 31-33).

In response to claim 17, Enders clearly describes a gas guide capable of directing portions of inflation fluid in directions opposite one another (Column 8, Lines 40-42).

In response to claim 18, Enders clearly describes an actuatable inflator comprised in part of an outlet for releasing inflation fluid and a manifold comprising a collar portion connectable with the outlet portion of the inflator (Column 6, Lines 5-9 and Column 8, Lines 36-40).

4. Claims 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enders in view of Einsiedel as applied to the claims above, and further in view of Shellabarger, US Patent 6,179,323.

In response to claim 19, Enders in view of Einsiedel teaches all of the claimed elements as previously discussed, except a collar portion comprised of separate collar parts with a flange portion wherein the collar parts are connected at the flange portion.

Shellabarger teaches separate collar parts with a flange portion (88) wherein the collar parts are connected at the flange portion.

It would have been obvious to one having ordinary skill in the art at the time of invention to modify the collar portion as taught by Enders in view of Einsiedel to include a flange portion so as to provide a more secure connection.

In response to claim 20, Enders discloses all of the claimed elements as previously discussed including an inflator disposed directly within the inflation gas inlet portion of the gas guide (Column 8, Lines 36-40), except a collar portion comprised of separate collar parts. Einsiedel teaches the use of separate collar parts each having an inner surface, being connectable with each other such that the inner surfaces encircle and engage the outlet portion of the inflator to clamp the collar portion onto the outlet portion of the inflator. It would have been obvious to one having ordinary skill in the art at the time of invention to modify the collar portion as taught by Enders with the collar portion as taught by Einsiedel,

such a modification would minimize complexity and space requirements (Column 1, Lines 16-19 and Lines 31-33).

In regards to claim 21, Enders in view of Einsiedel and further in view of Shellabarger discloses the claimed invention except for a second flange portion. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include an upper flange portion, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art.

In regards to claim 22, Shellabarger discloses a screw fastening means (200, 204).

In regards to claim 23, Enders discloses a T-shaped manifold (88).

In regards to claim 24, Enders clearly shows and describes all of the claimed elements as previously discussed, except for the manifold with a generally S-shaped configuration. Einsiedel teaches the use of a manifold with a generally C-shaped configuration (Column 2, Lines 46-48 and Column 3, Lines 9-13); however, it is noted that a change in the particular configuration from C to S-shaped is not grounds for patentability, as a person of ordinary skill in the art would find it obvious to reverse one portion for the purpose of providing inflation fluid in an opposite direction (In re Dailey, 149 USPQ 47 (CCPA 1976)). It is also noted that the claim reads on Einsiedel et al. except as to the final limitation "S-shaped," shifting the position of the collar portion, is not grounds for patentability, as a person of ordinary skill in the art would find it obvious to reverse one portion for achieving the same distribution pattern (In re Japikse, 86 USPQ (CCPA 1950)). Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to modify the invention as taught by Enders with the invention as taught by Einsiedel, such a modification would eliminate the use of complicated and expensive housings and achieve an almost absolutely gas tight flow connection between the inflator and the main fluid passages, referred to as the gas conduction lines (Column 1, Lines 31-33 and Column 3, Lines 6-8).

#### ***Response to Arguments***

5. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

**Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry J. Gooden Jr. whose telephone number is (571) 272-5135. The examiner can normally be reached on Monday-Friday 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on (571) 272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Barry J Gooden Jr.  
Examiner  
Art Unit 3616

BJG

 3/4/06  
PAUL N. DICKSON  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600